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Escorted Entry to Accelerator System Controlled Areas during ACIS Authorized Open Access Mode

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Escorted Entry to Accelerator System Controlled Areas during ACIS Authorized Open Access Mode

1 INTRODUCTION

1.1 Purpose

This procedure describes the methods by which workers or visitors may be approved for escorted entry into the controlled access areas of the linac, booster, or storage ring during ACIS Authorized Open Access Mode.

1.2 Scope

This procedure is to be used to obtain approval for escorted entry into the APS linac, booster, and storage ring areas where residual radiation fields previously existed and have been surveyed by health physics prior to posting these areas as controlled access.

1.3 Applicability

This procedure is used to allow escorted access to individuals who need to perform work inside the controlled access areas, but who have not fulfilled all of the requirements for unescorted access. It also is used to allow escorted access to visitors for tours of the areas. Note that removing the controlled area posting after radiological surveys are completed by ESQ-RSO HP technicians for specific segments of an enclosure still requires a person entering the enclosure to be escorted or to have completed ASD102 Tunnel Safety or ASD125 ASD Lockout/Tagout, as appropriate.

1.4 References

[LMS-PROC-146](#) External Dosimetry

[LMS-PROC-147](#) Access Control

1.5 Type of Procedure

This is a "Management Control Procedure."

1.6 Hazard Controls

Radiological hazards may be present but are not expected. Safety shoes and safety glasses must be worn while inside the controlled access areas unless waived for visitors on a tour. Training identified in [section 8](#) must be current.

2 BACKGROUND

The accelerator system shielded enclosures are posted as Controlled Areas following the initial HP survey conducted for the ACIS Authorized Open Access Mode. The specific posting is for a "Radiation Material Area" with the minimum radiological unescorted entry requirements being 1) completion of ESH700, Radiological Worker I training, and 2) personal dosimetry. In addition, ASD requires completion of course ASD102, Tunnel Safety, for unescorted entry for personnel not performing hands-on work or work near potentially energized components and adds completion of course ASD125, ASD Lockout/Tagout, for personnel performing hands-on work or work near potentially energized components. People who have not completed the requisite training or who have not been issued an Argonne dosimeter are prohibited from entering the enclosures unless escorted by a qualified APS employee.

3 ACCESS REQUIREMENTS

3.1 Access Control

All escorted accesses are to be done in a controlled manner originating in the Main Control Room (MCR).

3.2 Access Authorization

The MCR crew has the authority to permit unescorted access after verifying the escort(s) qualification(s).

4 PREPARATION OR PREREQUISITE ACTIONS

In order to be granted permission to enter the enclosures, escorted workers must have safety glasses, safety shoes, either personal or MCR-issued dosimeters (only if the entered area remains posted as a Controlled Area), and a clearly designated, qualified escort.

Escorted visitors may have the safety glasses and safety shoes requirements waived by the MCR crew with the concurrence of a divisional or ALD-level safety coordinator. Dosimeters are not issued to visitors entering with a clearly designated, qualified escort.

The ASD Accelerator Operations and Physics Group will maintain the capability in the MCR to verify completion by an intended escort of the training required in [section 8](#).

Qualified escorts must be current in all required training and have spoken with the APS health physicist prior to entry in order to understand the current radiological conditions within the enclosure areas to be entered as well as any restrictions to be imposed on the individuals being escorted due to those radiological conditions.

If more than eight (8) individuals are to be escorted, more than one qualified escort is required, and they must be broken into groups of eight individuals or less per qualified escort prior to entry. No more than eight individuals may be escorted by a single qualified escort.

5 PROCEDURE

This section is subdivided into three subsections separately addressing escorted workers, escorted visitors, and temporarily removing the controlled area posting for specific enclosure segments for purposes of conducting preplanned tours.

5.1 Escorting Individuals to Work within Accelerator System Controlled Area(s)

Step	Responsible Person	Action
1	Work Requestor	Submits Work Request for tasks to be performed within accelerator system controlled areas
2	Work Coordinator	Identifies all individuals who require escorted entry to perform work within accelerator system controlled areas Note: This may be done using a Work Entry Clearance form when the worker is not an APS employee
3	Work Coordinator	Brings workers requiring escorted entry to MCR prior to entry and identifies intended qualified escort
4	MCR Crew	a. Ensures workers have completed GERT prior to issuing temporary dosimeters and directs workers and escort to where GERT can be taken as needed b. Issues temporary dosimeters to workers if they do not have an Argonne-issued dosimeter (ANL-141). c. Determines if any additional requirements (e.g., LOTO) must be met prior to granting access d. Confirms intended escort has completed the training required in section 8 including LOTO, as applicable e. Has escort consult with APS HP to ensure escort is aware of current radiological conditions where work is to be performed OR a qualified ESQ-RSO HP technician may perform a radiological survey as part of the planned entry in order to provide immediate information on radiological conditions f. Grants permission for entry

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5	Qualified Escort	<ul style="list-style-type: none">a. Discusses current radiological conditions with APS HP prior to entry OR with a qualified ESQ-HP technician performing a radiological survey as part of the entryb. Briefs workers in any work restrictions due to radiological or other conditions within the controlled area, including basic tunnel safety rulesc. Ensures workers return temporary dosimeters to MCR crew after leaving the controlled area
6	Escorted Individuals	<ul style="list-style-type: none">a. Adhere to restrictions provided by qualified escortb. Wear provided dosimeters as directed

5.2 Escorting Visitors within Accelerator System Controlled Area(s)

Step	Responsible Person	Action
1	Visitor Host	<ul style="list-style-type: none">a. Identifies all visitors who require escorted entry to access accelerator system controlled areas for a tourb. Brings to MCR the visitors requiring escorted entry prior to entry and identifies intended qualified escort
2	MCR Crew	<ul style="list-style-type: none">a. Confirms intended escort has completed the training required in section 8b. Has escort consult with APS HP to ensure escort is aware of current radiological conditions where the tour is to be performed OR a qualified ESQ-RSO HP technician may perform a radiological survey as part of the planned entry in order to provide immediate information on radiological conditionsc. Grants permission for entry
3	Qualified Escort	<ul style="list-style-type: none">a. Discusses current radiological conditions with APS HP prior to entry OR with a qualified ESQ-HP technician performing a radiological survey as part of the entryb. Briefs visitors in any restrictions due to radiological or other conditions within the controlled area, including basic tunnel safety rulesc. Ensures visitors do not violate basic tunnel safety rules
4	Escorted Individuals	Adhere to directions provided by qualified escort

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5.3 Temporary Removal of Controlled Area Posting for Specific Locations for Preplanned Tours

Step	Responsible Person	Action
1	Visitor Tour Host	<ol style="list-style-type: none"> Identifies all visitors who require a tour of specific area(s) of the accelerator system enclosures that are posted as a controlled area Requests APS health physicist to perform a radiological survey of the area(s) to be toured to determine if current radiological conditions permit temporarily removing the posting for purposes of the tour
2	APS Health Physicist	<ol style="list-style-type: none"> Directs performance of a radiological survey of designated segments Reviews results to determine if controlled area posting can be temporarily removed Removes posting as appropriate and notifies Visitor Tour Host and MCR Crew of this action
3	Visitor Tour Host	Brings the tour visitors to MCR and identifies intended qualified escort
3	MCR Crew	<ol style="list-style-type: none"> Confirms intended escort has completed the training required in section 8 Has escort consult with APS HP to ensure escort is aware of boundaries of area where control area posting has been temporarily removed Grants permission for tour to commence
4	Qualified Escort	<ol style="list-style-type: none"> Discusses current radiological conditions with APS HP prior to entry Briefs visitors in any restrictions due to adjacent controlled area boundaries or other conditions within the section being toured, including basic tunnel safety rules Ensures visitors do not violate basic tunnel safety rules
5	Escorted Individuals	Adhere to directions provided by qualified escort
6	APS Health Physicist	Restores controlled area posting once visitor tour has been completed and all escorted visitors have left the area(s) toured

6 CLOSEOUT OR POST-PERFORMANCE ACTIVITY

Anyone issued a temporary dosimeter must return it to the MCR prior to leaving APS. Qualified escort briefs MCR crew on any unusual or abnormal conditions noted during work performance or while conducting the tour.

7 DOCUMENTS/RECORDS CREATED BY THIS PROCEDURE

The documents/records listed below will be created in the execution of this procedure and must be retained as indicated.

Description of Document/Record (include ID number, if applicable)	Custodian	Storage Location and Medium	Retention Requirement
Completed form ANL-141 for obtaining, transfer, or withdrawal of a dosimeter	ESQ External Dosimetry group	Index by badge number, store on paper or electronically	Destroy 75 years after dosimeter has been returned by a non-employee or after employee leaves employment (DOE ADM 1.21.4)

8 TRAINING REQUIRED

A qualified escort must always be current in the following courses:

- [ASD102 – Tunnel Safety](#)
- ESH700 – Radiological Worker One

A qualified escort for a worker performing a task requiring a LOTO also must be current in the following:

- [ASD125 – ASD LOTO](#)
- ESH114 – LOTO

9 FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the [APS Policies and Procedures Comment Form](#)^{*} to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure ([APS 1408152](#)).

^{*} http://centraldocs.aps.anl.gov/comment_form.php